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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/626,787	LEEK, WILLIAM F.	
	Examiner	Art Unit	
	Phi D. A	3633	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *17 October 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *21-39* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *21,22,24-29 and 36* is/are rejected.

7)☒ Claim(s) *23,30-35,37-39* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 21-22, 28-28, 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Minutoh et al (3782061) in view of Cummins (459414913 C5) and Siemons (5839321).

Minutoh et al (figure 2) shows a connection comprising an elongated tension member (52) having first and second ends, the tension member being anchored at the second end (the end with the part 54), a fastening member (26, 60 and the part next to part 59 figure 2), attached to the elongated tension member at the first end, a resisting member (24) that receives the tension member and is disposed between the fastening member and the second end of the tension member, an expansion device that receives the tension member there through and is compressively loaded between the fastening member and the resisting member by operation of the fastening member on the tension member, and the fastening member is only directly supported by the expansion device and said elongated tension member, the device comprising a surrounding sleeve (42) having two ends and a central aperture through which the tension member is inserted, a portion of the central aperture is formed as a substantially cylindrical inner surface and wherein at least a portion of the inner surface is formed with a thread, first and second bearing members (48, 50) received in the central aperture of the sleeve and operatively connected to the sleeve, the first and second bearing members also having apertures through which the tension member is inserted, at least one of the bearing members having a cylindrical

outer surface formed with a thread that mates with the thread of the cylindrical inner surface of the sleeve and is connected to the surrounding sleeve only by the mating attachment of the thread on the cylindrical outer surface with the thread of the surrounding sleeve, such that said at least one bearing member can rotate in relation to the surrounding sleeve, the outer axial end of the first bearing member contacting the fastening member, the outer axial end of the second bearing member contacting the resisting member, both the bearing members having cylindrical outer surfaces formed with threads that mate with the thread of the cylindrical inner surface of the sleeve, and both the bearing members are connected to the sleeve only by the mating attachment of the threads on the cylindrical outer surfaces with the thread of the surrounding sleeve such that both the bearing members can rotate in relation to the sleeve, the tension member is at least partially formed with a thread where the fastening member attaches to the tension member (where part 60 meets the tensioning member), the fastening member attaches to the tension member by means of an internal thread that mates with the thread of the tension member, the thread of the sleeve is threaded in the opposite direction as the thread of the tension member (figure 1), the elongated tension member having first and second ends and the fastening member, resisting member and expansion member are disposed near the first end, the second end of the tension member being connected to a structural member of a building, the building having a structural frame at least a portion of which is made from conventional material.

Minutoh et al does not show a torsion spring connecting the first and second bearing members, the spring biasing the first and second members in opposite rotational directions such that said at least one of the bearing members is forced to rotate along the thread of the

surrounding sleeve away from the other bearing member and out of the surrounding sleeve, the spring being disposed within the sleeve.

Cummins shows a torsion spring connecting the first and second bearing members (locking flange nut and flange nut), the spring biasing the first and second members in opposite rotational directions, the spring pushing on the second ends of the first and second bearing members.

Siemons discloses first and second bearing members (24, 55, figure 5) within a sleeve (72), a spring (90) within the sleeve acting on the bearing members to push the bearing members away from each other to enable backlash compensation.

It would have been obvious to one having ordinary skill in the art at the time of the invention to modify Minutoh et al's structure to show a torsion spring connecting the first and second bearing members, the spring biasing the first and second members in opposite rotational directions such that said at least one of the bearing members is forced to rotate along the thread of the surrounding sleeve away from the other bearing member and out of the surrounding sleeve, the spring being disposed within the sleeve because having a torsion spring between the bearing members would put the bearing members in compression and thus compensates for backlash as taught by Siemons and having the spring pushing on the second ends of the bearing members would enable the pushing force to act on the second ends of the first and second bearing members as taught by Cummins.

Per claim 29, Minutoh et al as modified shows all the claimed limitations except for the conventional material being wood.

It would have been obvious to one having ordinary skill in the art at the time of the invneiton to modify Minutoh et al's modified structure to show the frame having a portion made of wood since wood is a well known material for forming a building frame, and choosing a well known material for forming a building frame would have been obvious to one having ordinary skill in the art.

Per claim 36, Minutoh et al as modified shows the spring connecting to the bearing members near the outer axial ends of the members.

3. Claim 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over Minutoh et al (3782061) in view of Cummins (459414913 C5) and Siemons as applied to claim 22 above and further in view of Greenwood (459417870 page 318, figure 19).

Minutoh et al as modified shows all the claimed limitations except for an inner sizing sleeve that is received by the sleeve and is disposed between the torsion spring and the tension member.

Greenwood shows an inner sizing sleeve between the spring the tension member to enable the centering of the spring.

It would have been obvious to one having ordinary skill in the art at the time of the invention to modify Minutoh et al's modified structures to show an inner sizing sleeve that is received by the sleeve and is disposed between the torsion spring and the tension member because it would enable the centering of the spring as taught by Greenwood.

4. Claim 25 is rejected under 35 U.S.C. 103(a) as being unpatentable over Minutoh et al (3782061) in view of Cummins (459414913 C5) and Siemons.

Minutoh et al as modified shows all the claimed limitations including a locking clip (28) that is attached to the expansion device, the clip holding the bearing members so as to prevent them from rotating under the influence of the spring and causing the device to expand.

Minutoh et al does not show the clip being releasable from the device.

It would have been obvious to one having ordinary skill in the art at the time of the invention to modify Minutoh et al's modified structures to show the clip being releasable from the device because having the clip threadably attached to an internally threaded hole on the fastening member would enable easy connection of the clip to the fastening member.

Minutoh et al as modified show the clip being releasable from the device.

5. Claim 26 is rejected under 35 U.S.C. 103(a) as being unpatentable over Minutoh et al (3782061) in view of Cummins (459414913 C5) and Siemons as applied to claim 22 above and further in view of Fuehrer (3118681)

Minutoh et al as modified shows all the claimed limitations except for a pair of annular seals disposed at the ends of the surrounding sleeve to protect the thread of the surrounding sleeve.

Fuehrer shows a pair of annular seals (81) disposed at the ends of the surrounding sleeve to protect the interior of a sleeve.

It would have been obvious to one having ordinary skill in the art at the time of the invention to modify Minutoh et al's modified structures to show a pair of annular seals disposed at the ends of the surrounding sleeve to protect the thread of the surrounding sleeve because it would enable the sealing and protecting of the interior of the sleeve(71) as taught by Fuehrer.

Minutoh et al as modified show a pair of annular seals disposed at the ends of the surrounding sleeve to protect the thread of the surrounding sleeve.

6. Claim 27 is rejected under 35 U.S.C. 103(a) as being unpatentable over Minutoh et al (3782061) in view of Cummins (459414913 C5) and Siemons as applied to claim 22 above and further in view of Greenwood (459417870 page 316, figure 1).

Minutoh et al as modified shows all the claimed limitations except for the first and second bearing members being formed with annular recesses that can receive the ends of the spring.

Greenwood shows first and second bearing members (the parts denoted by spring centering seats) being formed with annular recesses that can receive the ends of the spring.

It would have been obvious to one having ordinary skill in the art at the time of the invention to modify Minutoh et al's modified structures to show the first and second bearing members being formed with annular recesses that can receive the ends of the spring because it would enable the centering of the spring as taught by Greenwood.

Allowable Subject Matter

7. Claims 23, 30-35, 37-39 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

8. The following is a statement of reasons for the indication of allowable subject matter: the prior art does not provide sufficient motivation to modify Minutoh et al's structure to show the thread of the sleeve near at least one of the ends being disturbed so that it is not possible for a bearing member traveling on the thread to pass all the way out of the sleeve in combination with

other claimed limitations, and prior art does not show the thread of the sleeve being threaded in the opposite direction as the thread of the tension member in combination with other claimed limitations.

Response to Arguments

1. Applicant's arguments filed 10/17/07 have been fully considered but they are not persuasive.

2. In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988)and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, the motivation to combine the references with Minutoli, is found in the referencese themselves. As set forth above, having a torsion spring between the bearing members would put the bearing members in compression and thus compensates for backlash and having the spring pushing on the second ends of the bearing members would enable the pushing force to act on the second ends of the first and second bearing members as taught by Cummins and Siemons. The motivation by other references to modify Minutoli is also clearly set forth and the combinations would have been obvious to one having ordinary skill in the art. With respect to " fastening member is only supported by the expansion device and the elongated tension member", examiner respectfully points out that the claims are to the connection and using comprising language in the preamble. First of all, the claim language is not exclusive. Secondly, when compared the

fastening member with other claimed limitations, the fastening member is only directly supported by the expansion device and the elongated tension member. The reference shows the limitations as claimed. With respect to the threads, the reference shows figure 1 shows the elements threading into the sleeve in different direction for expansion purpose. The reference thus shows the threads going in opposite directions as claimed.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Phi D A whose telephone number is 571-272-6864. The examiner can normally be reached on Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Chilcot can be reached on 571-272-6777. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Phi Dieu Tran A

1/6/08